

```
In [1]: d1={"apple":50,"mango":100,"kivi":200,"banana":40}
```

```
In [4]: d1.keys()
```

```
Out[4]: dict_keys(['apple', 'mango', 'kivi', 'banana'])
```

```
In [5]: d1.values()
```

```
Out[5]: dict_values([50, 100, 200, 40])
```

```
In [6]: #adding new element  
d1["grapes"]=50
```

```
In [7]: d1
```

```
Out[7]: {'apple': 50, 'mango': 100, 'kivi': 200, 'banana': 40, 'grapes': 50}
```

```
In [8]: #changing and exsting element
```

```
In [9]: d1["apple"]=100
```

```
In [10]: d1
```

```
Out[10]: {'apple': 100, 'mango': 100, 'kivi': 200, 'banana': 40, 'grapes': 50}
```

```
In [12]: d2={"orange":45,"papaya":120,"chiku":80,"watrmelon":150}
```

```
In [13]: d2
```

```
Out[13]: {'orange': 45, 'papaya': 120, 'chiku': 80, 'watrmelon': 150}
```

```
In [14]: #update one dict
```

```
In [15]: d1.update(d2)
```

```
In [16]: d1
```

```
Out[16]: {'apple': 100,  
          'mango': 100,  
          'kivi': 200,  
          'banana': 40,  
          'grapes': 50,  
          'orange': 45,  
          'papaya': 120,  
          'chiku': 80,  
          'watrmelon': 150}
```

```
In [17]: #popping an element
```

```
In [18]: d1.pop("grapes")
```

```
Out[18]: 50
```

```
In [20]: #string
```

```
In [21]: v1 = "hello"  
v2 = "world"
```

```
In [25]: v1,v2
```

```
Out[25]: ('hello', 'world')
```

```
In [26]: #concatenete
```

```
In [27]: v1+v2
```

```
Out[27]: 'helloworld'
```

```
In [28]: print(v1+v2)
```

```
helloworld
```

```
In [29]: #access substring
```

```
In [32]: substring = v2[0:8]
```

```
In [33]: print("substring",substring)
```

```
substring world
```

```
In [ ]:
```

```
In [34]: # numpy
```

```
In [1]: import numpy  
  
arr = numpy.array([1,2,3,4,5])  
print(arr)
```

```
[1 2 3 4 5]
```

```
In [3]: import numpy as np  
  
arr = np.array([1,2,3,4,5])  
print(arr)
```

```
[1 2 3 4 5]
```

In []: